# This Page Is Inserted by IFW Operations and is not a part of the Official Record

### BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

Please enter the following amendments.

;11-21- 3 ; 5:08PM ;

#### AMENDMENTS TO THE CLAIMS:

- 1. (currently amended) A fluorescent nucleotide represented by the formula: A-B-C, wherein A represents a residue of natural or synthetic nucleotide, oligonucleotide, polynucleotide, or derivative thereof, and binds to B at a base moiety in said residue; B represents a divalent linking group or a single bond; and C represents a monovalent group derived from a fluorescent dye having no sulfonic acid group and no phosphoric acid group in a molecule, and having a water soluble group other than a sulfonic acid group sulfonamide group or a lower alcohol group, a phosphoric acid group, or a carboxylic acid group in said molecule.
  - 2. Cancelled.
- 3. (original) The fluorescent nucleotide according to claim 1, wherein the fluorescent dyc is a cyanine, merocyanine, or styryl fluorescent dye.
  - 4. Cancelled.
  - 5. Cancelled.
  - 6. Cancelled.

7. (original) The fluorescent nucleotide according to claim 3, wherein the cyanine, merocyanine, or styryl fluorescent dye is a fluorescent dye having a structure represented by the following formulae,

merocyanine

wherein X and Y are each independently selected from the group consisting of O, S, and  $C(CH_3)_2$ ; Z is selected from the group consisting of O and S; m is an

integer selected from the group consisting of 1, 2, 3 and 4; R1 and R2 cach independently represent a hydrogen atom or an alkyl group that may be substituted with a reactive group capable of covalently binding to B, and an oxygen atom or a sulfur atom may be involved in an alkyl chain of the alkyl group, wherein at least one of  $\mathbb{R}^1$  and  $\mathbb{R}^2$  represents an alkyl group that may be substituted with a reactive group capable of covalently binding to B; and R3 to R11 each independently represent a hydrogen atom or a monovalent substituent, and two adjacent groups thereof may bind to form a ring.

;11-21- 3 ; 5:08PM

- 8. Cancelled.
- 9. (Currently amended) The fluorescent nucleotide according to elaim 5 claim 32, wherein at least one of R1 and R2 is an alkyl group substituted with an active ester group capable of covalently binding to an amino group, a hydroxyl group or a thiol group in the group B.
  - 10. Cancelled.
- 11. (Currently amended) The fluorescent nucleotide according to elaim 5, wherein at least one of  $R^1$  and  $R^2$  is an alkyl group substituted with a carboxyl group.
  - 12, Cancelled.
- 13. (original) The fluorescent nucleotide according to claim 1, wherein A is a residue of nucleotide or derivative thereof.
  - 14. Cancelled.
- (original) The fluorescent nucleotide according to claim 1, 15. wherein A represents a residue of natural or synthetic nucleotide or derivative thereof selected from (1) the group consisting of nucleotides consisting of AMP, ADP, ATP, GMP, GDP, GTP, CMP, CDP, CTP, UMP, UDP, UTP, TMP, TDP, TTP, 2-Me-AMP, 2-Mo-ADP, 2-Me-ATP, 1-Me-GMP, 1-Me-GDP, 1-Me-GTP, 5-Mc-CMP, 5-Me-CDP, 5-Me-CTP, 5-MeO-CMP, 5-MeO-CDP, and 5-MeO-CTP; (2) the group consisting of deoxynucleotides and dideoxynucleotides corresponding to said nucleotides; and (3) the group consisting of derivatives further derived from nucleotides described in said (1) and (2).
  - 16. Cancolled.

- 17. (original) The fluorescent nucleotide according to claim 1, wherein B is a linking group consisting of -CH<sub>2</sub>-, -CH=CH-, -C≡C-, -CO-, -O-, -S-, -NH-, or combinations thereof, wherein a hydrogen atom on the linking group may be further substituted with a substituent.
  - 18. Cancelled.
- 19. (original) The fluorescent nucleotide according to claim 17, wherein B is an aminoallyl group.
  - 20. Cancelled.
  - 21. Cancelled.
  - Cancelled. 22.
  - Cancelled. 23.
  - 24. Cancelled.
  - 25. Cancelled.
  - 26. Cancelled.
- 27. (original) A diagnostic agent or a reagent for detecting nucleic acids, which consists of the fluorescent nucleotide according to claim 1.
  - Cancelled. 28.
  - 29. Cancelled.
  - Cancelled. 30.
  - 31. Cancelled.

32. (new) The fluorescent nucleotide according to claim 3, wherein the cyanine, merocyanine, or styryl fluorescent dye is a fluorescent dye represented by the following formulae,

merocyanine

styryl

wherein X and Y are each independently selected from the group consisting of O, S, and C(CH<sub>3</sub>)<sub>2</sub>; m is an integer selected from the group consisting of 1, 2, 3 and 4; R<sup>1</sup> and R<sup>2</sup> each independently represent a hydrogen atom or an alkyl group that may be substituted with a reactive group capable of covalently binding to B, and a oxygen atom or a sulfur atom may be involved in an alkyl chain of the alkyl group, wherein at least one of R<sup>1</sup> and R<sup>2</sup> represents an alkyl group that may be substituted with a reactive group capable of covalently binding to B; R<sup>3</sup> to R<sup>9</sup> each independently represent a hydrogen atom or a monovalent substituent, and two adjacent groups thereof may bind to form a ring; and the dashed lines represent carbon atoms required to form said cyanine, merocyanine and styryl fluorescent dyes.